

## REMARKS

Reconsideration of the application is respectfully requested.

The following discussion addresses the issues in the order in which they have been raised in the Office Action.

### Claims Rejected Under 35 U.S.C. §101

Claims 1-7 and 21-32 stand rejected under 35 U.S.C. §101 because the claimed invention is allegedly directed to non-statutory subject matter. For instance, regarding claim 21, the Office Action at page 6 states that “the claimed machine readable medium is not necessarily a computer readable medium. The claimed data are not necessarily computer executable instructions. There is no structural and functional interrelationship between the instructions and the rest of the computer to permit the instructions’ functionality to be realized. Claim 21 is thus, non-statutory.” To obviate this rejection, claims 21-28 have been amended to refer to -- instructions that are executable by the processor --.

The Office Action at page 6 also indicates that claim 21 fails to recite a physical transformation and does not produce a useful and tangible result. Applicant respectfully disagrees because claim 21 recites the capability of several operations occurring pursuant to the execution of the instructions by the processor, which is a physical transformation. Also, these operations lead to the useful and tangible result of, for instance, a user being able to more efficiently indicate the generated characters as described in the Detailed Description of the Specification as filed.

In a Memorandum issued April 12, 2007, by Deputy Commissioner John J. Love of the U.S. Patent and Trademark Office, the current examination guidelines for determining what is patentable subject matter has been clarified in a way that obviates the instant rejection. According to the Memorandum, as long as the specification describes a tangible, concrete and useful result, it is not necessary to cite this result in a claim to comply with Section 101. A copy of the two page Memorandum is attached here. Here, Applicant’s Specification describes what is the purpose of the method or capability recited in the claims (whether such is implemented essentially as software in

a computer program, or as a combination of hardware and software), which is a character representation technique that allows a user to more efficiently indicate her desired character. Accordingly, claim 21 properly recites statutory subject matter.

Regarding the rejection of claim 29 as referring to “logic that is not necessarily computer executable instructions embodied in a computer readable medium”, Applicant again respectfully disagrees with this rejection, because the term “logic” refers to circuitry, which is statutory. To obviate this rejection, Applicant has added the term -- circuitry -- to clarify the nature of the structure being claimed.

Claims 1-7 also stand rejected as being directed to non-statutory subject matter, because claim 1 “in reality seeks patent protection for the computer program as evidenced by claim 1 in the Abstract. Computer program *per se* is neither computer components nor statutory process. Thus, claim 1 is non-statutory.” Once again, Applicant respectfully disagrees with the Examiner because claims 1-7 are directed to methods, and methods are, of course, statutory. Applicant does not understand why the Office Action takes the position that “in reality” claim 1 is a computer program *per se*.

#### **Claims Rejected Under 35 U.S.C. §112**

Claims 1-7 and 21-32 stand rejected under 35 U.S.C. §112, first paragraph, for failing to comply with the enablement requirement. The claims allegedly contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to make or use the invention. Applicant respectfully disagrees for the following reasons.

Beginning with independent claim 1, this claim recites a method for generating a desired alphanumeric character. The claim refers to receiving a user selection of a combination of zones from a plurality of zones. These zones, including their preferred extent and orientation are described in the Specification as filed, at paragraph [0027], [0030], and [0037] - [0041]. Applicant has also described how to implement these zones, for example, as part of a touch sensitive display screen, together with a programmed processor that operates the touch sensitive display screen. See Applicant’s Specification, paragraphs [0054] – [0056]. One of ordinary skill in the art would,

therefore, have plenty of instruction here to implement Applicant's method in claim 1 without undue experimentation.

Accordingly, for the above reasons, reconsideration and withdrawal of the claim rejections under 35 U.S.C. §112, first paragraph, is respectfully requested.

The Office Action at page 8 and continuing to page 11 goes into a long discussion of several aspects of the claimed subject matter, which are allegedly not supported in the Specification. This is not a proper rejection under 35 U.S.C. §112. If the Examiner considers the claim language as containing new matter, in violation of 35 U.S.C. §112, he should issue another office action that, in fact, states such a rejection. Before doing so, however, the following should be considered by the Examiner.

Specifically, at page 9, the Office Action states that claim 1 is not supported by the Specification because it recites *wherein the plurality of zones abut one another, thereby eliminating intervening spaces to essentially form a solid block*. This would also be an improper basis to reject the claims, for the following reasons. First, it should be understood that a zone is a region or area, apart from other characteristics it might have (such as a color). In other words, whether a zone is white or black it is still a zone. The boundaries between zones are indicated in Applicant's preferred embodiment in, for example, Fig. 6, as horizontal and vertical lines. The piece of paper on which Fig. 6 is printed is a white piece of paper, so that these boundaries are depicted as white lines. These boundary lines are similar to the boundaries of states as they are drawn on a map of the U.S., where one understands that the states abut each other and eliminate spaces between them (*i.e.*, there is no meaningful gap between two adjacent states, only a boundary line). The states can, of course, be designated in different colors. So can Applicant's zones, as shown in the figures. When one zone is contrasted with another zone, their colors will become different, so that the user can more easily distinguish which zone has been selected and which has not.

In an attempt to further explain this situation, Applicant addresses the comments on page 3 of the Office Action, as follows. There, the Office Action states, "According to the applicant's specification, Fig. 6 and Paragraph 0030, the solid block comprises the interior regions 530, 531 and 532. However, these regions are *holes* and the claimed

plurality of zones having the interior regions 530, 531 and 532 are displayed white. The black regions together with these white regions cannot form a 'solid block' as claimed." [Emphasis added] First, whether or not a region appears as a "hole" after it has been contrasted is irrelevant to the interpretation of the "solid block". The claim language refers to regions or zones, and how these regions abut one another to eliminate intervening spaces between them. Thus, there is essentially no hole between abutting regions. For example, region 531 is abutting region 532, such that there is no hole between those two regions. Similarly, region 530 abuts region 531, so that there is no hole between them. In fact, all of the regions are shaped and positioned in such a way that there are no holes between them. Thus, responding to the Examiner's statement that "the regions 530, 531 and 532 are holes", indeed these regions *appear* as holes *once they have been contrasted*. That, however, does not change the fact that those regions still abut each other as part of the claimed plurality of zones, to form a solid block. The Office Action is trying to read into the claims language that simply is not there. For instance, claim 1 makes no reference to white or black regions. All that the claimed subject matter recites is a plurality of zones that are arranged and shaped so as to abut one another to essentially form a solid block. This solid block, as amended here, is rectangular. This claim language is, therefore, clearly supported in the Specification as filed.

Now, claim 1 (prior to this amendment) recites that some of these zones are interior zones, while others are periphery zones. This language is also supported, for instance, in Fig. 6. **Applicant is allowed to describe an aspect of the drawings, using the language that one of ordinary skill in the art at the time of the invention would use to describe exactly what is shown, without the risk of introducing new matter.** For instance, if a drawing shows the shape  $\Delta$ , then Applicant is allowed to refer to this shape as a "triangle" in the claims. Furthermore, as explained above, the regions together form a solid block, regardless of whether or not a region has a different color. The regions do not disappear when, for instance, they are selected and become "white" – they remain in place as shown, except that they are now in a different color. The region or zone remains abutted to the others as part of the solid block.

The Office Action at page 3 finds that there is no disclosure in Applicant's Specification for "an interior region of the solid block". Again, this is an incorrect finding, because referring to Fig. 6, for example, one of ordinary skill in the art would understand, very clearly, that regions 530, 531, and 532 are at the interior of the solid block, because they are surrounded by the regions that are at the periphery (which include, for instance, regions 540, 542, 544, and 546). The discussion here concerns the regions, regardless of whether or not a particular symbol is being displayed by the regions. The Office Action confuses matters at the bottom of page 3 by stating, "For example, the speculated symbol for the alphanumeric character 'f' or 'F' does not have interior region of the solid block as claimed." This statement is confusing. In claim 1, Applicant is not referring to a particular alphanumeric character. Rather, claim 1 recites the relative location of the regions or zones, namely the interior ones and the peripheral ones. Whether or not a particular character has a region or not is irrelevant at this point.

The Office Action confuses matters even further, at page 4, by referring to paragraph [0030] of Applicant's Specification where the concept of the features of a character are described. Again, Applicant's claim 1, prior to this amendment, **does not refer to features**. It is not necessary to refer to "features" because as explained in Applicant's Specification, the concept of decomposing a character into features was presented only to explain the derivation of Applicant's solid block of zones used for indicating characters more efficiently. Although claim 1 has been amended to refer, in fact to such features, this is not necessary to understand or claim the invention. Note that claims 21 and 29 are not amended to refer to "features", because it is not necessary to do so. It is believed that the amendment to claim 1 will clarify this point, so that this issue can be cleared from further discussion.

Applicant would also like to address some of the comments made at page 5 of the Office Action regarding the claim language *contrasting the combination with the remainder of said plurality of zones so that the combination is essentially removed leaving behind a graph symbol in the solid block that resembles the desired character*. Again, the Office Action indicates that the Specification does not contain support for this claim language. In particular, the Examiner refers to Fig. 7, which shows a display of the letters of the English alphabet and ten decimal numbers. According to the Office Action, "Applicant

speculates that the character 'm' is formed by removing a combination of only one zone." Again, **this statement by the Examiner has nothing to do with the recited claim language and would therefore be an improper basis to reject the claim.** The claim language refers to a method for generating a particular, desired alphanumeric character. This claim language does **not** require that **every** alphanumeric character be generated in the manner recited. However, to indulge the Examiner, Applicant submits that the depiction of "m" in Fig. 9 is clear, when "removing" (or contrasting) a zone in the middle of the bottom row, as well as two, smaller zones in the top row. There is no requirement in Applicant's claim that each and every character be formed by removing (contrasting) a single zone. Accordingly, the discussion at page 5 of the Office Action is again confusing the issue.

Regarding the statement at the bottom of page 5 that the symbols for the characters "r", "t", "v", "w", and "y", do not nearly resemble the alphanumeric character, Applicant respectfully disagrees. This can be seen by looking at Fig. 10a, which shows each symbol being displayed, without the boundary lines between the zones. It is noted that there are some obvious errors in the display of "v" and "w" in this figure, by comparing them to their corresponding symbols in Fig. 9. For "v", a center region in the top row has not been contrasted, while for "w", two smaller regions in the top row have not been contrasted. The symbols are otherwise sufficiently clear.

### **Claims Rejected Under 35 U.S.C. §112**

Claims 1-7 and 21-32 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for not particularly pointing out and distinctly claiming the subject matter of the invention. In particular, the Examiner states that it is "the features, rather than the regions, that abut one another, eliminating the intervening spaces". However, as explained above, it is irrelevant that the specification refers to features, as well as regions, because the **claims** do not refer to features but rather only regions. Moreover, as explained above, the difference between features and regions is clear in the sense that the features have been described as a way to derive the shape and arrangement of the regions. Thus, while it is true that the features are said to be "stretched", so as to abut one another and eliminate intervening spaces, **it is also true that these stretched features become the boundaries of the regions.** See Applicant's Specification,

paragraph [0038]. Accordingly, the claim language that refers to the regions as abutting one another by eliminating intervening spaces, **as depicted in the figures**, clearly point out the claimed subject matter.

The Examiner also rejects the claims under 35 U.S.C. §112, second paragraph, as allegedly reciting the unclear phrase “a user’s selection of a combination of one or more zones from a plurality of zones.” Note that the plain meaning of this phrase is simply that the user points out one or more of the zones – that is all. Yet the Office Action at page 17 insists that only some specific combinations of zones can be selected. Once again, that is irrelevant, because the Applicant need not limit the claim in that manner. It is, of course, true that there are a limited number of combinations that can be constructed, given that there are a finite number of zones. Again, this is irrelevant to understanding the claim language. Applicant is fully entitled to claim as broadly as permitted, without confusing the reader. The Office Action’s insistence that a limited number of combinations be recited is unjustified and unnecessary under the patent rules. Accordingly, reconsideration and withdrawal of the rejection is requested.

Regarding the rejection of claim 21, where the Office Action states that it is “the remainder, rather than the selection, that is mapped to each of the alphanumeric characters, Applicant, again, respectfully submits that the Office Action is performing a strained interpretation of the claims. Claim 21 recites *mapping each of a plurality of alphanumeric characters to a respective selection of one or more regions*, where this means that each character is associated with a respective selection. **There is nothing unclear or incorrect about that statement.** It is, of course, also true that each character can be mapped to a remainder, in addition to a respective selection. Once again, that is not required to be claimed by the Applicant. Accordingly, the rejection of the claims as failing to recite the additional understanding of the Examiner, even though such an understanding may be correct, is an improper requirement. The same argument applies to find that claims 29-32 have also been improperly rejected.

Accordingly, reconsideration and withdrawal of the 35 U.S.C. §112, second paragraph, rejections is requested.

### Claims Rejected Under 35 U.S.C. §103

Claims 1-7 and 21-32 stand rejected as being obvious over U.S. Patent Application Publication No. 2004/0239624 issued to Ramian ("Ramian"), in view of U.S. Patent No. 4,727,357 issued to Curtin, et al. ("Curtin"). These rejections have been made by the Examiner, while giving no patentable weight for several limitations of Applicant's claims. However, as explained above, the Examiner has improperly rejected Applicant's claims under 35 U.S.C. §112, and should have given patentable weight to the claim limitations discussed below.

The Examiner is directed to Applicant's previous response, at pages 9 and 10, in which Applicant explains why Curtin and Ramian do not render obvious Applicant's claims. To summarize, neither Ramian nor Curtin teach or suggest Applicant's *plurality of zones abutting one another to eliminate intervening spaces to essentially form a solid block*, where it is this solid block that is used to display the features that make up a character, via a complementary rather than direct approach. Although Curtin does describe a way of indicating alphanumeric characters using a complementary approach in which all of the bars are normally activated and, when forming characters, the necessary bars are deactivated so that the remaining lit bars form the desired character, there is no teaching or suggestion to modify the arrangement of the bars in Curtin to arrive at Applicant's claimed *plurality of zones that are abutting one another to eliminate intervening spaces to essentially form a solid block*. This is not merely an obvious modification, nor is it one of several available design choices. Rather, the shape and arrangement of Applicant's zones, particularly as they are recited in amended claim 1 in relation to features of the characters, renders an overall more efficient process of indicating characters by a user. For example, it is clear that most of the characters in Curtin require that the user deactivate more than two or three bars, so that a graphic symbol that resembles the desired character can appear. This is not the case in Applicant's invention, particularly, for instance, as viewed in Fig. 10a where at most two control zones need to be selected by the user to indicate any of the letters and numbers of the alphabet. Accordingly, for the above reasons, Applicant submits that the claims are not obvious in view of the relied upon art references.



Any dependent claims not mentioned above are submitted as not being anticipated or obvious, for at least the same reasons given above in support of their base claims.

It should be noted that not all of the assertions made in the Office Action, particularly those with respect to the dependent claims, have been addressed here, in the interest of conciseness. Applicants reserve the right to challenge any of the assertions made in the Office Action by the Examiner, with respect to the relied upon art references and how they would relate to Applicants' claim language, including the right to swear behind or otherwise remove an improper art reference.

### CONCLUSION

In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record and are in condition for allowance and such action is earnestly solicited at the earliest possible date.

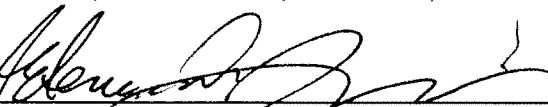
If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly extension of time fees.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR, & ZAFMAN LLP

Dated: July 23, 2007.

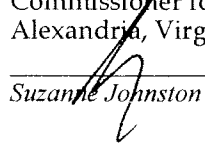
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July 23, 2007



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MEMORANDUM

DATE: April 12, 2007  
TO: Technology Center Directors  
FROM: John J. Love *KL*  
Deputy Commissioner  
For Patent Examination Policy  
SUBJECT: Clarification of Interim Guidelines For Examination of Patent Applications  
for Subject Matter Eligibility

Certain inconsistencies have come to my attention in the application of the Interim Guidelines For Examination of Patent Applications for Subject Matter Eligibility, which are set forth in section 2106 of the Manual of Patent Examining Procedure (8<sup>th</sup> Ed. Rev. 5, Aug. 2006) (MPEP). The situation arises in the context of whether or not a claim is for a practical application of an abstract idea, law of nature, or natural phenomenon. As stated in the Interim Guidelines, a claim is for a practical application of an abstract idea, law of nature, or natural phenomenon when the claimed invention "transforms" an article or physical object to a different state or thing, or when the claimed invention produces a useful, concrete and tangible result. See MPEP 2106, subsection IV.C.2.

Focus on Result

A practical application in this context can be the result itself, and does not require that steps or additional limitations be added to the claim. As stated in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1601 (Fed. Cir. 1998):

Today, we hold that the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces "a useful, concrete and tangible result"—a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.

It is the result that should be the focus. If the result has a real world practical application/use, then the test has been satisfied. The claim need not include the uses to which the result is ultimately put, just the result itself. Another example would be an improved method for measuring blood sugar levels in human beings. In this example, the end result is the blood sugar level which is a practical application for diagnostic purposes. Accordingly, reciting the improved method, and the result it achieves—the measurement of the blood sugar level—is all that is necessary for patent-eligibility. The diagnostic steps that occur after the determination of the blood sugar level need not necessarily be present in the claims in order for the claims to be statutory.

### Use of Specific Terminology

Another area of inconsistency surrounds the use of the terms such as "determining," "calculating," and similar expressions. Some object to these as not creating a tangible result. Such terms may in fact be sufficient to establish a tangible result. See, e.g., *State Street*, 149 F.3d at 1375, 47 USPQ2d at 1602 (holding the calculation of a number having a real world value and to be a "useful, concrete, and tangible result") and *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 50 USPQ2d 1447 (Fed. Cir. 1999) (holding a method claim including the generation of a message record for an interexchange call to be statutory). The specification should be referred to for a meaning of the terms. See *In re Musgrave*, 431 F.2d 882, 893, 167 USPQ 280, 289 (CCPA 1970) ("[w]e cannot agree with the board that these claims (all the steps of which can be carried out by the disclosed apparatus) are directed to non-statutory processes merely because some or all the steps therein can also be carried out in or with the aid of the human mind or because it may be necessary for one performing the processes to think. . . .").